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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,158	10/31/2003	Jeffrey D. Carnevali	NPI-019	9849

7590
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02/27/2007

EXAMINER

STERLING, AMY JO

ART UNIT

PAPER NUMBER

3632

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/698,158

Applicant(s)

CARNEVALI, JEFFREY D.

Examiner

Amy J. Sterling

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the **Final Office Action** for application number 10/698,158 Flexible Support Arm, filed on 10/31/03. Claims 1-3 and 5-21 are pending. This **Final Office Action** is in response to applicant's reply dated 1/4/07. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action.

Claim Rejections - 35 USC § 103

Claims 1-3, 5, 6, 8-10, 14-16 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6749160 to Richter and in view of United States Patent No. 4020575 to Kruger et al.

Richter teaches the basic inventive including teaching a flexible support apparatus (10) having a support base (10) having an opening in one surface and a mounting bracket having an opening (13) in one surface and a permanently bendable continuously solid metal rod of substantially constant cross section, the rod being made of aluminum (12, See Col. 3 line 9 for rod material) having a first end installed in the opening of the support base and fused direction to the support base and having a second end installed in the opening of the mounting means and fused directly to the mounting bracket and wherein the opening in the support base and mounting bracket have a second larger opening (Inner and outer openings, See Drawing Below) into which a flexible sheath (11) if inserted. Richter teaches the method forming a support

Richter does not teach that a welded/ultrasonically welded joint is formed directly between the first end of the metal rod and the support base and that the base or that the base and bracket are formed of ultrasonically weldable plastic Richter also does not teach the method of ultrasonically welding the plastic or metal to fetal fusible by conventional means. Richter does teach that there is a joint formed directly between the first end of the metal rod and the support base.

Kruger et al. teaches a device with ultrasonically weldable plastic and the method of using ultrasonically weldable plastic used for securely bonding two elements together. (See Col. 1, line 37 and Col. 2, line 12).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Kruger et al. to have fused any pieces together either by welding or by using an ultrasonic weldable plastic in order to secure elements together, welding and weldable plastic both being well known in the art at the time of the invention. It would also be obvious to have had metal to metal fused, the choice of any suitable material being obvious.

Claims 13, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6749160 to Richter and in view of United States Patent No. 4020575 to Kruger et al. as applied to claim 9 above and further in view of United States Patent No. 6811146 to Giralt.

Richter and Kruger et al. teach the basic inventive concept, including the method of installing a flexible sheath (10) around a solid metal rod (16).

Richter and Kruger et al. do not teach that the support base and mounting bracket are made of aluminum or the method of forming a support base and mounting bracket of weldable aluminum material.

Giralt teaches a aluminum that is weldable material (See Col. 4 lines 39-41) and it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Giralt to have made the device and its parts.

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of any suitable material or method of forming them from any suitable material, in order to easily attach the components to each other.

Claims 7, 11, 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6749160 to Richter and in view of United States Patent No. 4020575 to Kruger et al. as applied to claim 10 above and further in view of United States Patent No. 6637642 to Lingnau.

Richter and Kruger et al. and show the basic inventive concept as shown above with the exception that they do not teach that the metal rod is made of upset metal finish prior to welding or an upset surface material or the method of upsetting the metal around the rod.

Lingnau discloses solid state welding including teaching that the upset finish prior to welding of the metal can and will affect the welding profile. (See Col. 8, lines 6-24). Therefore it would have been obvious to make the metal tubing with an upset finish on the surface, in order to further change the welding characteristics of the metal rod.

Response to Arguments

The applicant has argued that the term "fused" is not met by the term "firmly connected". This is unpersuasive in that it is evident that the joint as taught by Richter is intended to be firmly secured and "welding" or "fusing" is an obvious way to connect a joint, the process, method and structure of which was well known at the time of the

invention. The applicant's structure has not become novel because one of its joints is "welded, ultrasonically welded or fused".

The applicant has argued that Richter does not teach that the aluminum rod is connected to the support plate. The applicant has narrowly interpreted the term "connected" to mean something it does not. The aluminum rod is clearly connected to the plate, even if there are other elements in between, aiding in this connection.

The applicant has argued that Kruger fails to teach a weld joint formed directly between the first end of the metal rod and the support base. As discussed above, securing two elements together with a weld joint is not new, but an obvious way to attach the desired device. As far as the Kruger reference teaching away from the metal rod having a first end fused directly to the support base because Richter teaches metal to metal welding and Kruger teaches plastic to plastic, this argument is unpersuasive. Kruger is being used to demonstrate that ultrasonic welding is not novel and the material welded is inconsequential in this teaching.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, welding, ultrasonic welding are all within the knowledge generally


known at the time the application was filed and therefore cannot be considered hindsight reasoning.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication should be directed to Amy J. Sterling at telephone number 571-272-6823. The fax machine number for the Technology center is 571-273-8300 (formal amendments) or 571-273-6823 (informal communications only). Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist at 571-272-3600.

Amy J. Sterling
Primary Examiner
2/15/07


AMY J. STERLING
PRIMARY EXAMINER
TECHNOLOGY CENTER 3600